IN THE CLAIMS:

Please **AMEND** claims 19, 20, 29, 31, 33-35, 43, and 48, as follows:

1-18. (CANCELED)

19. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and a magnitude of a leading space of the present mark;

a generator to control generation of a write pulse waveform in which the present mark comprises a first pulse and a last pulse which are determined in accordance with one or more grouping tables and the discriminated magnitudes of the present mark and the leading space, the one or more grouping tables storing width data of first and/or last pulses for the write pulse waveform to be generated varying according to the different stored potential magnitudes of the present mark of the input data and the leading ~~spaces~~space such that the generated write pulse waveform is generated without regard for a trailing space of the present mark; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform controlled by the generator.

20. (CURRENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the generator includes:

a write waveform controller to generate pulse width data to vary a width of the first and last pulses of the write pulse waveform to be generated in accordance with the discriminated magnitude of the leading space and the discriminated magnitude of the present mark; and

a write pulse generator to generate the write pulse waveform in accordance with the pulse width data.

21. (PREVIOUSLY PRESENTED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark;

a generator to control generation of a write pulse waveform in accordance with one or more grouping tables having width data of first and/or last pulses for the write pulse waveform

according to the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform,

wherein:

the generator includes:

a write waveform controller to generate pulse width data to vary a width of the first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark and to vary a width of the last pulse of the write pulse in accordance with the magnitude of the present mark and the magnitude of the trailing space; and

a write pulse generator to generate the write pulse waveform in accordance with the pulse width data, and

the write waveform controller comprises a memory in which the pulse width data of the first and/or last pulses for the write pulse waveform are stored, by grouping the magnitude of the present mark and the magnitudes of the leading and/or trailing spaces, into a short pulse group, a middle pulse group or a long pulse group.

22. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 21, further comprising a microcomputer to initialize the write waveform controller and control the pulse width data stored in the memory to be updated in accordance with write conditions.

23. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses for the write pulse waveform depending on whether the input data is in a land track or a groove track.

24. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 21, wherein the memory stores the pulse width data of the first and/or last pulses for the write pulse waveform for respective zones on the optical recording medium.

25. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 20, wherein light power for a predetermined one of channels of the write pulse waveform is applied during a period corresponding to a varied width of the first pulse and

during a period corresponding to a varied width of the last pulse.

26. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 25, wherein a light power for the predetermined channel is a read power or a write power.

27. (CANCELED)

28. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 19, wherein the generator generates pulse width data by varying a rising edge of the first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

29. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark;

a generator to control generation of a write pulse waveform in which the present mark comprises a first pulse and a last pulse formed in accordance with one or more grouping tables having width data of first and/or last pulses for the present mark with the write pulse waveform varying according to potential ~~the~~ magnitudes of the present mark of the input data and ~~the~~potential magnitudes of ~~the~~ leading and/or trailing spaces; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform,

wherein the generator generates pulse width data by varying a falling edge of the first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark.

30. (PREVIOUSLY PRESENTED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark;

a generator to control generation of a write pulse waveform in accordance with one or more grouping tables having width data of first and/or last pulses for the write pulse waveform

according to the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform,

wherein the generator generates pulse width data by varying a rising edge of the last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark.

31. (CURRENTLY AMENDED) The recording and/or reproducing apparatus according to claim 19, wherein the one or more grouping tables stores width data of first and/or last pulses for the write pulse waveform to be generated varying according to only the different stored potential magnitudes of the potential present marks and the leading spaces such that the generated write pulse waveform is generated without regard for other spaces or marks other than the leading space and the present mark~~the generator generates pulse width data by varying a falling edge of the last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark~~.

32. (PREVIOUSLY PRESENTED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse, by varying a rising edge of a first pulse of the write pulse and a second pulse of the write pulse in accordance with a magnitude of a space adjacent a present mark and a magnitude of the present mark, based on at least one table storing width data of the first and/or second pulses in a grouping format in which the magnitudes of the present mark and the adjacent space are grouped into corresponding pulse groups grouped according to magnitudes; and

a driver to drive the light source according to the adaptive write pulse.

33. (CURRENTLY AMENDED) An adaptive write pulse generating circuit, the adaptive write pulse being used for writing input data to an optical recording medium, comprising:

a write pulse inputting unit inputting a write pulse, the write pulse including a first pulse, a last pulse and a multi-pulse train;

a generator generating the adaptive write pulse, by varying a rising edge of the first pulse in accordance with a magnitude of a leading space and a magnitude of a present mark and varying ~~a the~~the ~~second~~ last pulse in accordance with ~~a magnitude of~~ the magnitude of the

present mark without regard for a magnitude ~~for~~ of a trailing space of the present mark, based on at least one table storing width data of the first and/or second pulses in a leading space and present mark grouping format; and

an outputting unit to output the generated adaptive write pulse.

34. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse in which a present mark is formed using a first pulse and a last pulse determined using a grouping table having width data for ~~a~~ pulses of ~~a~~the write pulse waveform organized according to groupings of potential ~~a~~ magnitudes of ~~a~~ the present mark of input data and potential ~~a~~ magnitudes of a leading space of the present mark ~~by grouping the magnitudes of the present mark and the leading space into corresponding pulse groups grouped according to magnitudes~~; and

a processor to process data on a recording medium,

wherein the width data comprises rising edge information of the pulse.

35. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse in which a present mark is formed using a first pulse and a last pulse determined using one or more grouping tables, the one or more grouping tables storing width data of widths of corresponding first and/or last pulses of ~~a~~ the write pulse waveform varying according to corresponding stored potential magnitudes of ~~a~~ the present mark of input data and stored potential magnitudes of a corresponding space adjacent the present mark by grouping the magnitudes of the present mark and the adjacent space into corresponding pulse groups grouped according to magnitudes; and

a processor to process data on a recording medium using the generated adaptive write pulse.

36. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 35, wherein the adaptive write pulse includes a first pulse, a last pulse and a multi-pulse train, and is different in respective zones on the recording medium.

37. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 35,

wherein the write pulse waveform is based on whether input data is in a land track or a groove track.

38. (PREVIOUSLY PRESENTED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark;

a generator to control generation of a write pulse waveform in accordance with one or more grouping tables having width data of first and/or last pulses for the write pulse waveform according to the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform,

wherein, in at least one of the one or more grouping tables, magnitudes corresponding to the present mark and magnitudes of leading and/or trailing spaces are grouped according to a short pulse group, a middle pulse group and a long pulse group.

39. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 32, wherein, in the grouping format, magnitudes corresponding to the present mark and magnitudes of leading and/or trailing spaces are grouped according to a short pulse group, a middle pulse group and a long pulse group.

40. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 33, wherein, in the grouping format, magnitudes corresponding to the present mark and magnitudes of leading and/or trailing spaces are grouped according to a short pulse group, a middle pulse group and a long pulse group.

41. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 34, wherein, in the grouping table, magnitudes corresponding to the present mark and magnitudes of leading and/or trailing spaces are grouped according to a short pulse group, a middle pulse group and a long pulse group.

42. (PREVIOUSLY PRESENTED)A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse using one or more grouping tables having width data of first and/or last pulses of a write pulse waveform according to a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark; and

a processor to process data on a recording medium,

wherein, in one or more of the one or more grouping tables, magnitudes corresponding to the present mark and magnitudes of leading and/or trailing spaces are grouped according to a short pulse group, a middle pulse group and a long pulse group.

43. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a generator to generate an adaptive write pulse in which a present mark is formed using a plurality of pulses, one of the pulses for the present mark having ~~comprising a pulse with a variable~~ pulse width which is ~~, with the pulse width being~~ varied according to ~~a~~ potential magnitudes of ~~a~~the present mark of input data and ~~a~~ potential magnitudes of a leading space of the present mark without regard for a magnitude of a trailing space of the present mark; and

a processor to process data on a recording medium.

44. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 43, wherein the pulse width is varied by varying an edge placement of the pulse, including varying a rising edge placement of the pulse based on the magnitude of the present mark and the magnitude of the leading space of the present mark.

45. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 44, wherein the generator generates the adaptive write pulse using a predetermined table storing magnitudes of the present mark and the leading space by grouping the magnitudes of the present mark and the leading space into corresponding pulse groups grouped according to magnitudes.

46. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 45, wherein the groups comprise a first group and a second group, and the magnitude of each member of the first group is less than the magnitude of each member of the second group.

47. (CANCELED)

48. (CURRENTLY AMENDED) A recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising:

a discriminator to discriminate a magnitude of a present mark of input data and a magnitude of a space adjacent the present mark;

a generator to control generation of a write pulse waveform in which the present mark is formed using first and last pulses determined in accordance with one or more grouping tables and the discriminated magnitudes of the present mark and the adjacent space, the generator comprising a memory in which the pulse width data of the first and/or last pulses for the write pulse waveform are stored, the one or more grouping tables storing pulse width data of first and/or last pulses for the write pulse waveform by grouping the potential magnitudes of the present mark and the space adjacent the present mark, into a plurality of pulse groups grouped according to the magnitudes; and

a driver to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform controlled by the generator.

49. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 48, wherein the generator varies the width according to the magnitude of the present mark regardless of a magnitude of a trailing space of the present mark.

50. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 48, wherein the pulse groups comprise a short pulse group and another pulse group, each member of the another pulse group having magnitudes greater than each member of the short pulse group.

51. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 32, wherein the generator varies the width according to the magnitude of the present mark regardless of a magnitude of a trailing space of the present mark.

52. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 32, wherein the groups comprise a short pulse group and another pulse group, each member of the another pulse group having magnitudes greater than each member of the short pulse group.

53. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 34, wherein the grouping tables groups comprise a short pulse group and another pulse group.

54. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus of claim 35, wherein the grouping tables groups comprise a short pulse group and another pulse group.

55. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 21, wherein the groups of the magnitudes comprise the magnitude of the present mark and the magnitude of the leading space, and the write pulse waveform is generated without regard for the trailing space.

56. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 55, wherein the grouping the magnitude of the present mark and the magnitudes of the leading space comprises grouping into a combination of groups selected from the short pulse group, the middle pulse group and the long pulse group.

57. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 56, wherein the combination of groups includes the short pulse group and at least one other group selected from the middle pulse group and the long pulse group.

58. (PREVIOUSLY PRESENTED) The recording and/or reproducing apparatus according to claim 38, wherein the groups of the magnitudes comprises the magnitude of the present mark and the magnitude of the leading space, and the write pulse waveform is generated without regard for the trailing space.